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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,203	10/28/2003	Rudolf J. Hofmeister	15436.253.68.1	4499

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R. BURNS ISRAELSEN
WORKMAN NYDEGGER
1000 Eagle Gate Tower
60 East South Temple
Salt Lake City, UT 84111

EXAMINER

WANG, QUAN ZHEN

ART UNIT	PAPER NUMBER
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2613

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/695,203	HOFMEISTER ET AL.	
	Examiner	Art Unit	
	Quan-Zhen Wang	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "secondary circuit" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-4 and 6-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1, 2, 4, and 11 recite the limitation of "secondary circuit". However, specification does not disclose what constitutes the claimed "secondary circuit".

Without such disclosure, the specification is non-enabling for claims 1-4 and 6-12.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-4 and 6-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 2, 4, and 11 recite the limitation of "forming a temporary electrical connection between a secondary circuit and the electrical interface of the test apparatus". However, fig. 1 only shows a "Tx circuit" and "electrical interface". No secondary circuit is shown. Therefore, it is unclear what is meant by the claimed "secondary circuit".

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4, 6-13, and 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swanson et al. (U.S. Patent US 6,580,531 A1 B1).

Regarding claims 1 and 2, as they are understood in view of the above 112 problems, and 13, Swanson discloses an optical subassembly testing apparatus (figs. 1 and 7) configured to evaluate an optical subassembly, the apparatus comprising: a base member (inherent, not shown in the figs.); a test circuit (figs. 1 and 7, the combination of test controller 14, communication analyzer 24, wave meter 30, power meter 36, and BER tester 52) disposed on the base member; an electrical interface (figs. 1 and 7, interface 20 and connection between the optical transceiver board 10 and BER tester 52) disposed in electrical communication with the test circuit, the electrical interface configured to be connected to the optical subassembly (fig. 1, optical transceiver board 10); and transmitting a data stream through the optical subassembly and evaluating the data stream (figs. 1 and 7). Swanson differs from the claimed invention in that Swanson does not specifically disclose to only test the optical subassembly and the connection between the optical subassembly and the test circuit board is temporal. However, Swanson further discloses that the optical assembly is employed within in an optical

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communication device (column 4, lines 24-28). Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to configure the testing apparatus of Swanson to temporarily connection the optical subassembly to the test board in order to easily disconnect the optical assembly from the testing apparatus and place the optical assembly within in an optical communication device after the assembly passes the test.

Regarding claims 3, 6, and 24, Swanson discloses that the subassembly is one of TOSA (fig. 1, optical transmitter 8) and ROSA (fig. 7, optical receiver 9).

Regarding claims 7 and 18-22, Swanson further discloses using optical transmitter or receiver and an analyzer (figs. 1 and 7, transmitter 51, receiver 48, and BER tester 52, note that BER tester is also a pattern generator).

Regarding claims 8 and 23, Swanson further discloses to transmitting the results of the evaluation to a computer (figs. 1 and 7, test controller 14).

Regarding claim 9, Swanson discloses converting the optical signal from the TOSA back to an output electrical signal, and comparing the input electrical signal with the output electrical signal (fig. 1).

Regarding claim 10, Swanson discloses that the optical subassembly is a receiver optical subassembly (ROSA) wherein transmitting a data stream through the ROSA comprises sending a data stream in the form of an input optical signal through the ROSA, wherein the ROSA outputs a corresponding data stream in the form of an electrical signal (fig. 7)

Regarding claims 11 and 12, as they are understood in view of the above 112 problems, the evaluation process of Swanson inherently comprising transmitting the electrical signal from the secondary circuit (the circuitry connected to the optical transceiver 10 to the interface 20) the test circuit; and transmitting the electrical signal from the test circuit to a computer (figs. 1 and 7).

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Swanson et al. (U.S. Patent US 6,580,531 A1 B1) in view of Thatcher et al. (U.S. Patent US 5,757,998).

Regarding claim 4, the system of Swanson differs from the claimed invention in that Swanson does not specifically disclose that the circuit comprises a flexible circuit. However, a flexible circuit is well known in the art. For example, Thatcher discloses to include a flexible circuit in the optical transceiver units. Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to include a flexible circuit, as it is disclosed by Thatcher, in order to provide a normal force to the temporal connection.

9. Claims 14-17, and 25-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swanson et al. (U.S. Patent US 6,580,531 A1 B1) in view of Barror (U.S. Patent US 6,765,396 B2).

Regarding claims 14-17, the system of Swanson and Burton differs from the claimed invention in that Swanson does not specifically disclose to temporarily place the

subassembly in temporary electrical connection using a clamping assembly. However, it would be obvious and common knowledge to temporarily place the subassembly in temporary electrical connection using a pivotal or slidable clamping assembly. As one example, Barror disclose to temporarily place the subassembly in temporary electrical connection using a clamping assembly (fig. 2). Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to incorporate a clamping assembly, as it is disclosed by Barror, in the modified system of Swanson and Burton to temporarily place the subassembly in temporary electrical connection in order to perform the test for the optical subassembly and replace any defective optical components in the subassembly before the final package is completely assembled.

Regarding claim 26, Barror disclose that the clamping assembly has a plurality of pivot points (figs. 2-4) enabling the clamping assembly to engage the optical subassembly at the electrical interface with at least a connecting force and a locking force, the locking force is inherently greater than the connecting force.

Regarding claims 27 and 29-31, Swanson further discloses that an analyzer (figs. 1 and 7, BER tester 52; note that BER tester is also a pattern generator) is connected to the optical subassembly (figs. 1 and 7, transceiver board 10).

Regarding claims 28 and 32, Swanson further discloses to transmitting the results of the evaluation to a computer (figs. 1 and 7, test controller 14).

Response to Arguments

10. Applicant's arguments filed on April 18, 2007 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Burton et al. (U.S. Patent US 4,911,519) discloses an advance packaging techniques, in which optical assembly is tested for satisfactory operation.

Takai et al. (U.S. Patent US 5,548,399) discloses a method and apparatus for testing a DC coupled optical receiver.

Jackson et al. (U.S. Patent US 5,345,230) disclose a method and apparatus for optical transceiver testing.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quan-Zhen Wang whose telephone number is (571) 272-3114. The examiner can normally be reached on 9:00 AM - 5:00 PM, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

qzw
4/30/2007



JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600